

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>40336/JMD</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 00/ 00834</b>	International filing date (day/month/year) <b>08/03/2000</b>	(Earliest) Priority Date (day/month/year) <b>10/03/1999</b>
Applicant <b>ADPROTECH PLC et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**ORGAN TRANSPLANT SOLUTIONS CONTAINING CONJUGATES OF SOLUBLE PEPTIDIC COMPOUNDS WITH MEMBRANE-BINDING**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1  
☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 00/00834

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 A01N1/02 C07K14/705 A61K47/48

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 39433 A (ADPROTECH PLC) 11 September 1998 (1998-09-11) cited in the application claims 1-17 page 20, last paragraph page 22, line 13 - line 19 page 23, line 22 - line 26 ---	1-13
X	WO 98 02454 A (ADPROTECH PLC) 22 January 1998 (1998-01-22) cited in the application claims 1-49 page 25, line 30 - line 35 page 23, line 11 - line 15 ---	1-13
A	WO 97 11601 A (UNIV JOHNS HOPKINS MED) 3 April 1997 (1997-04-03) the whole document --- -/--	1-13

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

25 May 2000

Date of mailing of the international search report

05/06/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Siatou, E

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 00/00834

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 693 462 A (R. M. RAYMOND) 2 December 1997 (1997-12-02) cited in the application claims 1-29 ----	1-13
A	US 5 702 881 A (L. BRASILE ET AL) 30 December 1997 (1997-12-30) cited in the application claims 1-25 ----	1-13
A	US 5 833 989 A (DANUTA EWA IRENA MOSSKOWSKA ET AL) 10 November 1998 (1998-11-10) cited in the application claims 1-16 column 6, line 66 -column 7, line 4 column 8, line 50 - line 55 ----	1-13
A	MAKRIDES S C ET AL: "CELL SURFACE EXPRESSION OF THE C3B/C4B RECEPTOR (CR1) PROTECTS CHINESE HAMSTER OVARY CELLS FROM LYSIS BY HUMAN COMPLEMENT" JOURNAL OF BIOLOGICAL CHEMISTRY,US,AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, vol. 264, no. 34, 5 December 1992 (1992-12-05), pages 24754-24761, XP002072411 ISSN: 0021-9258 cited in the application ----	1-13
A	HANCOCK ET AL: "A polybasic domain or palmitoylation is required in the addition to the CAAX motif to localize p21ras to the plasma membrane" CELL,US,CELL PRESS, CAMBRIDGE, NA, vol. 63, 5 October 1990 (1990-10-05), pages 133-139, XP002079834 ISSN: 0092-8674 cited in the application -----	1-13

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/00834

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9839433	A	11-09-1998	AU 6509098 A EP 0979276 A	22-09-1998 16-02-2000
WO 9802454	A	22-01-1998	AU 3693997 A EP 0912730 A	09-02-1998 06-05-1999
WO 9711601	A	03-04-1997	AU 7386796 A	17-04-1997
US 5693462	A	02-12-1997	US 5554497 A AU 4420396 A CA 2207324 A EP 0797384 A WO 9618293 A	10-09-1996 03-07-1996 20-06-1996 01-10-1997 20-06-1996
US 5702881	A	30-12-1997	AU 6409594 A WO 9421116 A	11-10-1994 29-09-1994
US 5833989	A	10-11-1998	DE 69328098 D EP 0649468 A WO 9400571 A JP 7508516 T US 5859223 A	20-04-2000 26-04-1995 06-01-1994 21-09-1995 12-01-1999

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

RECEIVED

MAR - 7 2002

TECH CENTER 1600/291

Date of mailing (day/month/year) 07 September 2001 (07.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 40336/JMD	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor	<input type="checkbox"/> the agent
<input type="checkbox"/> the common representative		
Name and Address ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom	State of Nationality GB	State of Residence GB
Telephone No.		
Facsimile No.		
Teleprinter No.		
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input type="checkbox"/> the person	<input type="checkbox"/> the name	<input checked="" type="checkbox"/> the address
<input type="checkbox"/> the nationality		
<input type="checkbox"/> the residence		
Name and Address ADPROTECH LIMITED Chesterford Research Park Little Chesterford Saffron Walden Essex CB10 1XL United Kingdom	State of Nationality GB	State of Residence GB
Telephone No.		
Facsimile No.		
Teleprinter No.		
3. Further observations, if necessary:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned	
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned	
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Agnes WITTMANN-REGIS
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

Date of mailing (day/month/year) 07 September 2001 (07.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 40336/JMD	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08 March 2000 (08.03.00)

## 1. The following indications appeared on record concerning:

☒ the applicant
 ☐ the inventor
 ☐ the agent
 ☐ the common representative

## Name and Address

ADPROTECH LIMITED  
Second floor, Units 7 & 8  
The Maltings  
Green Drift  
Royston  
Herts. SG8 5DY  
United Kingdom

## State of Nationality

GB

## State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☐ the name
 ☒ the address
 ☐ the nationality
 ☐ the residence

## Name and Address

ADPROTECH LIMITED  
Chesterford Research Park  
Little Chesterford  
Saffron Walden  
Essex CB10 1XL  
United Kingdom

## State of Nationality

GB

## State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

☒ the receiving Office
 ☐ the designated Offices concerned  
☐ the International Searching Authority
 ☒ the elected Offices concerned  
☐ the International Preliminary Examining Authority
 ☐ other:

The International Bureau of WIPO 34, chemin des Colmbettes 1211 Geneva 20, Switzerland	Authorized officer  Agnes WITTMANN-REGIS
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

## TENT COOPERATION TRE. Y

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 05 December 2000 (05.12.00)	
<b>International application No.</b> PCT/GB00/00834	<b>Applicant's or agent's file reference</b> 40336/JMD
<b>International filing date</b> (day/month/year) 08 March 2000 (08.03.00)	<b>Priority date</b> (day/month/year) 10 March 1999 (10.03.99)
<b>Applicant</b> SMITH, Richard, Anthony, Godwin et al	

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

10 October 2000 (10.10.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b>  Olivia TEFY
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38



RECEIVED

27 NOV 2000

CAMBRIDGE

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE

(PCT Rule 92bis.1 and  
Administrative instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PE  
ROYAUME-UNI

Date of mailing (day/month/year) 14 November 2000 (14.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 40336/JMD	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:									
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative								
Name and Address ADPROTECH plc Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts SG8 5DY United Kingdom	<table border="1"> <tr> <td>State of Nationality GB</td> <td>State of Residence GB</td> </tr> <tr> <td colspan="2">Telephone No.</td> </tr> <tr> <td colspan="2">Facsimile No.</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality GB	State of Residence GB	Telephone No.		Facsimile No.		Teleprinter No.	
State of Nationality GB	State of Residence GB								
Telephone No.									
Facsimile No.									
Teleprinter No.									
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:									
<input type="checkbox"/> the person	<input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence								
Name and Address ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom	<table border="1"> <tr> <td>State of Nationality GB</td> <td>State of Residence GB</td> </tr> <tr> <td colspan="2">Telephone No.</td> </tr> <tr> <td colspan="2">Facsimile No.</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality GB	State of Residence GB	Telephone No.		Facsimile No.		Teleprinter No.	
State of Nationality GB	State of Residence GB								
Telephone No.									
Facsimile No.									
Teleprinter No.									
3. Further observations, if necessary:									
4. A copy of this notification has been sent to:									
<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned								
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned								
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer R. Raissi
Facsimile No.: (41-22) 740.1435	Telephone No.: (41-22) 338.83.38

## INTERNATIONAL COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

Date of mailing (day/month/year) 14 November 2000 (14.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 40336/JMD	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor	<input type="checkbox"/> the agent
<input type="checkbox"/> the common representative		
Name and Address ADPROTECH plc Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts SG8 5DY United Kingdom	State of Nationality GB	State of Residence GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input type="checkbox"/> the person	<input checked="" type="checkbox"/> the name	<input type="checkbox"/> the address
<input type="checkbox"/> the nationality		
<input type="checkbox"/> the residence		
Name and Address ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom	State of Nationality GB	State of Residence GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned	
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned	
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:	

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer R. Raissi Telephone No.: (41-22) 338.83.38
--	---

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

Date of mailing (day/month/year)

08 November 2000 (08.11.00)

Applicant's or agent's file reference

40336/JMD

## IMPORTANT NOTIFICATION

International application No.

PCT/GB00/00834

International filing date (day/month/year)

08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:

☒

the applicant

☐

the inventor

☐

the agent

☐

the common representative

Name and Address

ADPROTECH plc  
Second floor, Units 7 & 8  
The Maltings  
Green Drift  
Royston  
Herts SG8 5DY  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐

the person

☒

the name

☐

the address

☐

the nationality

☐

the residence

Name and Address

ADPROTECH LIMITED  
Second floor, Units 7 & 8  
The Maltings  
Green Drift  
Royston  
Herts. SG8 5DY  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒

the receiving Office

☒

the designated Offices concerned

☐

the International Searching Authority

☐

the elected Offices concerned

☐

the International Preliminary Examining Authority

☐

other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

R. Raissi

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

# TENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 05 December 2000 (05.12.00)	
<b>International application No.</b> PCT/GB00/00834	<b>Applicant's or agent's file reference</b> 40336/JMD
<b>International filing date</b> (day/month/year) 08 March 2000 (08.03.00)	<b>Priority date</b> (day/month/year) 10 March 1999 (10.03.99)
<b>Applicant</b> SMITH, Richard, Anthony, Godwin et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
10 October 2000 (10.10.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b> Olivia TEFY Telephone No.: (41-22) 338.83.38
--	--

**PCT**

**NOTIFICATION OF THE RECORDING  
OF A CHANGE**

(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

<b>Date of mailing (day/month/year)</b> 19 October 2000 (19.10.00)	
<b>Applicant's or agent's file reference</b> 40336/JMD	<b>IMPORTANT NOTIFICATION</b>
<b>International application No.</b> PCT/GB00/00834	<b>International filing date (day/month/year)</b> 08 March 2000 (08.03.00)

<b>1. The following indications appeared on record concerning:</b> <input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative		
<b>Name and Address</b> ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts SG8 5DY United Kingdom	<b>State of Nationality</b> GB	<b>State of Residence</b> GB
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:</b> <input type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
<b>Name and Address</b> ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom	<b>State of Nationality</b> GB	<b>State of Residence</b> GB
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>3. Further observations, if necessary:</b>		
<b>4. A copy of this notification has been sent to:</b> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> the receiving Office  <input type="checkbox"/> the International Searching Authority  <input type="checkbox"/> the International Preliminary Examining Authority                         </div> <div> <input checked="" type="checkbox"/> the designated Offices concerned  <input type="checkbox"/> the elected Offices concerned  <input type="checkbox"/> other:                         </div> </div>		

<p style="text-align: center;"><b>The International Bureau of WIPO</b>                  34, chemin des Colombettes                  1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p><b>Authorized officer</b></p> <p style="text-align: center;">R. Raissi</p> <p>Telephone No.: (41-22) 338.83.38</p>
---	---

**PCT**

**NOTIFICATION OF THE RECORDING  
 OF A CHANGE**

(PCT Rule 92bis.1 and  
 Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
 Reddie & Grose  
 16 Theobalds Road  
 London WC1X 8PL  
 ROYAUME-UNI

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<b>Applicant's or agent's file reference</b> 40336/JMD	
<b>International application No.</b> PCT/GB00/00834	<b>International filing date</b> (day/month/year) 08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:			
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor	<input type="checkbox"/> the agent	<input type="checkbox"/> the common representative
Name and Address ADPROTECH plc Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts SG8 5DY United Kingdom		State of Nationality GB	State of Residence GB
		Telephone No.	
		Facsimile No.	
		Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:			
<input type="checkbox"/> the person	<input checked="" type="checkbox"/> the name	<input type="checkbox"/> the address	<input type="checkbox"/> the nationality <input type="checkbox"/> the residence
Name and Address ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom		State of Nationality GB	State of Residence GB
		Telephone No.	
		Facsimile No.	
		Teleprinter No.	
3. Further observations, if necessary:			
4. A copy of this notification has been sent to:			
<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned		
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned		
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:		

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  R. Raissi  Telephone No.: (41-22) 338.83.38
--	---

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

<b>Date of mailing</b> (day/month/year) 08 November 2000 (08.11.00)	<b>IMPORTANT NOTIFICATION</b>
<b>Applicant's or agent's file reference</b> 40336/JMD	
<b>International application No.</b> PCT/GB00/00834	<b>International filing date</b> (day/month/year) 08 March 2000 (08.03.00)

<b>1. The following indications appeared on record concerning:</b> <input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative		
<b>Name and Address</b> ADPROTECH plc Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts SG8 5DY United Kingdom	<b>State of Nationality</b> GB	<b>State of Residence</b> GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
<b>2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:</b> <input type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
<b>Name and Address</b> ADPROTECH LIMITED Second floor, Units 7 & 8 The Maltings Green Drift Royston Herts. SG8 5DY United Kingdom	<b>State of Nationality</b> GB	<b>State of Residence</b> GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
<b>3. Further observations, if necessary:</b>  		
<b>4. A copy of this notification has been sent to:</b> <input checked="" type="checkbox"/> the receiving Office <input checked="" type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input type="checkbox"/> the elected Offices concerned <input type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:		

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b>  R. Raissi Telephone No.: (41-22) 338.83.38
--	--

09/936205

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE

(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

DAVIES, Jonathan, Mark  
Reddie & Grose  
16 Theobalds Road  
London WC1X 8PL  
ROYAUME-UNI

RECEIVED

MAR - 7 2002

TECH CENTER 1600/290

Date of mailing (day/month/year) 07 September 2001 (07.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 40336/JMD	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08 March 2000 (08.03.00)

1. The following indications appeared on record concerning:

☒ the applicant ☐ the inventor ☐ the agent ☐ the common representative

Name and Address

ADPROTECH LIMITED  
Second floor, Units 7 & 8  
The Maltings  
Green Drift  
Royston  
Herts. SG8 5DY  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

ADPROTECH LIMITED  
Chesterford Research Park  
Little Chesterford  
Saffron Walden  
Essex CB10 1XL  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned  
☐ the International Searching Authority ☒ the elected Offices concerned  
☐ the International Preliminary Examining Authority ☐ other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Agnes WITTMANN-REGIS Telephone No.: (41-22) 338.83.38
---	--



REC'D 09 MAY 2001

WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

14


Applicant's or agent's file reference 40336/JMD	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/00834	International filing date (day/month/year) 08/03/2000	Priority date (day/month/year) 10/03/1999
International Patent Classification (IPC) or national classification and IPC A01N1/02		
Applicant ADPROTECH LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.  
  
☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  10/10/2000	Date of completion of this report  07.05.2001
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Mitchell, G  Telephone No. +49 89 2399 8678



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/00834

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

### Description, pages:

1-32 as originally filed

### Claims, No.:

1-13 as originally filed

### Drawings, sheets:

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB00/00834

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 10-13.

because:

☒ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):  
**see separate sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)

Yes: Claims

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB00/00834

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	No:	Claims	1-13
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-13
Industrial applicability (IA)	Yes:	Claims	1-9
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**R Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

Claims 10-13 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of these claims (Article 34(4)(a)(i) PCT).

For the assessment of the present claims 10 -13 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment (claims 10-13), but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: WO 98 39433 A (ADPROTECH PLC) 11 September 1998 (1998-09-11) cited in the application
- D2: WO 98 02454 A (ADPROTECH PLC) 22 January 1998 (1998-01-22) cited in the application
- D3: WO 97 11601 A (UNIV JOHNS HOPKINS MED) 3 April 1997 (1997-04-03)
- D4: US-A-5 833 989 (DANUTA EWA IRENA MOSSKOWSKA ET AL) 10 November 1998 (1998-11-10) cited in the application

The present application relates to the preparation for perfusion of an organ prior to transplantation or storage of the organ. Said preparation comprises a derivative of a soluble polypeptide and a physiologically acceptable flush storage solution.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB00/00834

In a preferred embodiment of the claimed invention of the present application, the soluble derivatives of the soluble peptides of D1, D2 and D4 are diluted in Soltran kidney perfusion (page 12, lines 3-6).

D1 discloses a soluble polypeptide, the sequence of which is given on page 5, line 31-41. D1 further discloses that the polypeptide or its derivatives are useful in the treatment or diagnoses of many complement-mediated or complement-related diseases (page 20, line 19-21) and that the polypeptide or its derivative may be formulated into an appropriate pharmaceutical or therapeutical composition (page 22, line 15-21). Moreover, the administration of the polypeptide may be to the patient or by application to the transplant prior to implantation (page 23, line 22-26).

D2 concerns conjugates of soluble peptidic compounds with membrane-binding agents as defined in claim 1 of D2. The application of these soluble peptidic compounds in therapy is disclosed (page 23, line 11-17 and page 25, line 30-35), wherein an effective amount of a soluble complement inhibitor, i.e. the peptide, is administered to the patient or by application to the transplant prior to implantation.

D3 relates to the soluble peptide used in the present application and its use in a pharmaceutical composition. D3 discloses (column 7 and 8) that for administration the polypeptide should be formulated into an appropriate composition which contains a therapeutically active amount of the polypeptide and a pharmaceutically acceptable excipient or carrier. The polypeptide is suitable for the treatment of disease or disorder associated with inappropriate complement activation. The composition can be administered to the patient or by application to the transplant prior to implantation.

From the teaching of D4 (page 5, line 3-7) the CR1, which is the preferred embodiment of the soluble peptide of claim 1 of the present application, is administered by any suitable means including intralesional administration (which includes "perfusing or otherwise contacting the graft with the CR1 prior to transplantation".)

Therefore, in light of the prior art, claims 1-13 are neither new nor inventive (Art. 33 (1)-(3) PCT). The use of a soluble peptide, as defined in claim 1, in a composition is known. Although the specific term "flush storage solution" is not specifically disclosed in D1-D4, it is understood from the description that said flush storage solution, of which

Soltran is an example, is well known in the art and is therefore considered to be implicitly disclosed when a pharmaceutically suitable excipient or carrier is referred to. Furthermore, although a technical effect is illustrated in Figure 1 it is not surprising given the nature of a perfusion, which is to provide oxygen and nutrients to target organs and tissues.

Therefore, claims 1-13 do not satisfy the requirements of Art. 33 PCT.

**Re Item VII**

**Certain defects in the international application**

- The term "incorporated herein by reference" is used on page 32 of the description. If the documents mentioned are to be incorporated, the disclosure thereof should be included expressis verbis in the description under the conditions set out in the Guidelines C-II, 4.18 or the phrase "incorporated herein by reference" should be deleted.
  
- Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document 3 is not mentioned in the description, nor is this document identified therein.

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PCT/GB00/00834

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# SEQUENCE INFORMATION

## NOTE:

Amino acid numbering shown below for the SCR constructs (SEQ ID Nos 1 through 2) assumes that the N-terminal methionine (used for E. coli expression) is M1. This contrasts with numbering in the Examples where M0 is used. Therefore for the sequence numbering shown below, deduct '1' from the numbering to match with the Examples.

## (2) INFORMATION FOR SEQ ID NO:1:

### (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 215 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

### (ii) MOLECULE TYPE: peptide

### (v) FRAGMENT TYPE: N-terminal

### (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Met	Gln	Cys	Asn	Ala	Pro	Glu	Trp	Leu	Pro	Phe	Ala	Arg	Pro	Thr	Asn
1				5				10						15	
Leu	Thr	Asp	Glu	Phe	Glu	Phe	Pro	Ile	Gly	Thr	Tyr	Leu	Asn	Tyr	Glu
			20					25					30		
Cys	Arg	Pro	Gly	Tyr	Ser	Gly	Arg	Pro	Phe	Ser	Ile	Ile	Cys	Leu	Lys
			35				40						45		
Asn	Ser	Val	Trp	Thr	Gly	Ala	Lys	Asp	Arg	Cys	Arg	Arg	Lys	Ser	Cys
			50				55						60		

***SUBSTITUTE SHEET (RULE 26)***



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Arg	Asn	Pro	Pro	Asp	Pro	Val	Asn	Gly	Met	Val	His	Val	Ile	Lys	Gly
65					70				75					80	
Ile	Gln	Phe	Gly	Ser	Gln	Ile	Lys	Tyr	Ser	Cys	Thr	Lys	Gly	Tyr	Arg
				85				90					95		
Leu	Ile	Gly	Ser	Ser	Ser	Ala	Thr	Cys	Ile	Ile	Ser	Gly	Asp	Thr	Val
			100					105					110		
Ile	Trp	Asp	Asn	Glu	Thr	Pro	Ile	Cys	Asp	Arg	Ile	Pro	Cys	Gly	Leu
		115					120				125				
Pro	Pro	Thr	Ile	Thr	Asn	Gly	Asp	Phe	Ile	Ser	Thr	Asn	Arg	Glu	Asn
		130				135					140				
Phe	His	Tyr	Gly	Ser	Val	Val	Thr	Tyr	Arg	Cys	Asn	Pro	Gly	Ser	Gly
145				150					155					160	
Gly	Arg	Lys	Val	Phe	Glu	Leu	Val	Gly	Glu	Pro	Ser	Ile	Tyr	Cys	Thr
			165					170					175		
Ser	Asn	Asp	Asp	Gln	Val	Gly	Ile	Trp	Ser	Gly	Pro	Ala	Pro	Gln	Cys
			180					185					190		
Ile	Ile	Pro	Asn	Lys	Cys-S-S-	{Cys	Asp	Gly	Pro	Lys	Lys	Lys	Lys	Lys	Lys
		195													
						CO <sub>2</sub> H		CONH <sub>2</sub>							

Lys Ser Pro Ser Lys Ser Ser Gly} (N-Myristoyl)

***SUBSTITUTE SHEET (RULE 26)***

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## (2) INFORMATION FOR SEQ ID NO:2:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 218 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(v) FRAGMENT TYPE: N-terminal

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met	Gln	Cys	Asn	Ala	Pro	Glu	Trp	Leu	Pro	Phe	Ala	Arg	Pro	Thr	Asn	
1				5				10						15		
Leu	Thr	Asp	Glu	Phe	Glu	Phe	Pro	Ile	Gly	Thr	Tyr	Leu	Asn	Tyr	Glu	
			20					25						30		
Cys	Arg	Pro	Gly	Tyr	Ser	Gly	Arg	Pro	Phe	Ser	Ile	Ile	Cys	Leu	Lys	
			35				40						45			
Asn	Ser	Val	Trp	Thr	Gly	Ala	Lys	Asp	Arg	Cys	Arg	Arg	Lys	Ser	Cys	
		50					55					60				
Arg	Asn	Pro	Pro	Asp	Pro	Val	Asn	Gly	Met	Val	His	Val	Ile	Lys	Gly	
65					70					75				80		
Ile	Gln	Phe	Gly	Ser	Gln	Ile	Lys	Tyr	Ser	Cys	Thr	Lys	Gly	Tyr	Arg	
					85					90				95		
Leu	Ile	Gly	Ser	Ser	Ser	Ala	Thr	Cys	Ile	Ile	Ser	Gly	Asp	Thr	Val	

***SUBSTITUTE SHEET (RULE 26)***

4/5

100	105	110
Ile Trp Asp Asn Glu Thr Pro Ile Cys Asp Arg Ile Pro Cys Gly Leu		
115	120	125
Pro Pro Thr Ile Thr Asn Gly Asp Phe Ile Ser Thr Asn Arg Glu Asn		
130	135	140
Phe His Tyr Gly Ser Val Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly		
145	150	155
Gly Arg Lys Val Phe Glu Leu Val Gly Glu Pro Ser Ile Tyr Cys Thr		
165	170	175
Ser Asn Asp Asp Gln Val Gly Ile Trp Ser Gly Pro Ala Pro Gln Cys		
180	185	190
Ile Ile Pro Asn Lys Cys-S-S-{Cys Ala Asp Leu Arg Ser Ser Leu Gly		
195		
	CO <sub>2</sub> H	CONH <sub>2</sub>

Pro Lys Lys Lys Lys Lys Lys Ser Pro Ser Gly} (N-Myristoyl)

(SEQ ID NO: 3)

N-(Myristoyl)-Gly-Ser-Pro-Ser-Lys-Lys-Lys-Lys-Lys-Lys-Pro-Gly-Leu-Ser-Ser-Arg-Leu-Asp-Ala-  
(S-2-Thiopyridyl)Cys-NH<sub>2</sub>

(SEQ ID NO: 4)

Gly-Ser-Pro-Ser-Lys-Lys-Lys-Lys-Lys-Lys-Pro-Gly-Leu-Ser-Ser-Arg-Leu-Asp-Ala-Cys-NH<sub>2</sub>

***SUBSTITUTE SHEET (RULE 26)***

(SEQ ID NO: 5)

Pro-Ser-Lys-Lys-Lys-Lys-Lys-Lys-Pro

(SEQ ID NO: 6)

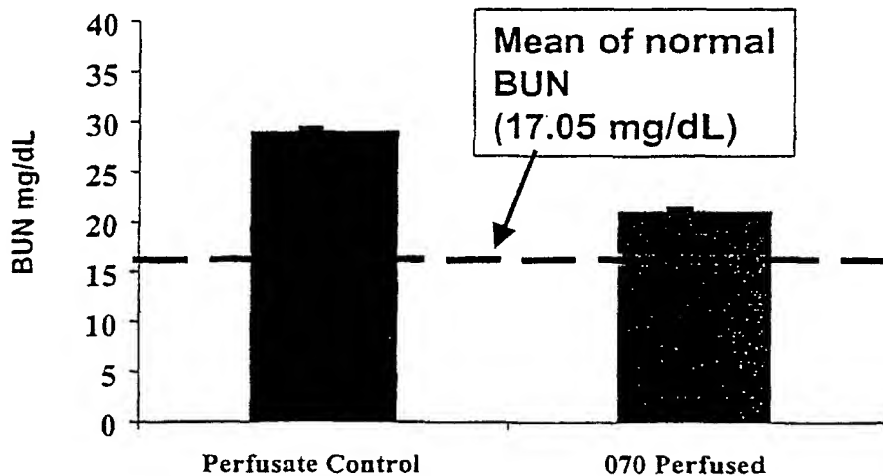
Leu-Ser-Ser-Arg-Leu-Asp-Ala



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : A01N 1/02, C07K 14/705, A61K 47/48		A1	(11) International Publication Number: WO 00/53007
			(43) International Publication Date: 14 September 2000 (14.09.00)
(21) International Application Number: PCT/GB00/00834		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 8 March 2000 (08.03.00)		Published With international search report.	
(30) Priority Data: 9905503.0 10 March 1999 (10.03.99) GB			
(71) Applicant (for all designated States except US): ADPROTECH LIMITED [GB/GB]; Second floor, Units 7 & 8, The Maltings, Green Drift, Royston, Herts. SG8 5DY (GB).			
(72) Inventors; and (75) Inventors/Applicants (for US only): SMITH, Richard, Anthony, Godwin [GB/GB]; Norfolk House, Haverhill Road, Horseheath, Cambridge CB1 6QR (GB). PRATT, Julian, Roy [GB/GB]; 57 Leathermarket Court, London SE1 3HS (GB). SACKS, Steven, Howard [GB/GB]; 12 Holbrook Lane, Chislehurst, Kent BR7 6PF (GB).			
(74) Agent: DAVIES, Jonathan, Mark; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).			

(54) Title: ORGAN TRANSPLANT SOLUTIONS CONTAINING CONJUGATES OF SOLUBLE PEPTIDIC COMPOUNDS WITH MEMBRANE-BINDING



## (57) Abstract

This invention relates to formulations of polypeptides and their derivatives that act as inhibitors or regulators of the immune or coagulation systems and are of use in organ transplantation. It provides solutions which include, for example, complement inhibitors or regulators of T- or B-lymphocyte function in modified molecular forms that can be used to perfuse and modify organs prior to transplantation or to store organs prior to transplantation, and to localise agents on organs. It further provides for a preparation for perfusion of an organ prior to transplantation or storage of the organ comprising: a soluble derivative of a soluble polypeptide, said derivative comprising two or more heterologous membrane binding elements with low membrane affinity covalently associated with the polypeptide which elements are capable of interacting, independently and with thermodynamic additivity, with components of membranes of the organ exposed to extracellular perfusion fluids; and a physiologically acceptable flush storage solution.

*FOR THE PURPOSES OF INFORMATION ONLY*

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CM	Cameroon	KR	Republic of Korea	PT	Portugal		
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CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

## INTERNATIONAL SEARCH REPORT

Int. Application No

PCT/GB 00/00834

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A01N1/02 C07K14/705 A61K47/48

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 39433 A (ADPROTECH PLC) 11 September 1998 (1998-09-11) cited in the application claims 1-17 page 20, last paragraph page 22, line 13 - line 19 page 23, line 22 - line 26	1-13
X	WO 98 02454 A (ADPROTECH PLC) 22 January 1998 (1998-01-22) cited in the application claims 1-49 page 25, line 30 - line 35 page 23, line 11 - line 15	1-13
A	WO 97 11601 A (UNIV JOHNS HOPKINS MED) 3 April 1997 (1997-04-03) the whole document	1-13
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

25 May 2000

Date of mailing of the international search report

05/06/2000

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/00834

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 693 462 A (R. M. RAYMOND) 2 December 1997 (1997-12-02) cited in the application claims 1-29	1-13
A	US 5 702 881 A (L. BRASILE ET AL) 30 December 1997 (1997-12-30) cited in the application claims 1-25	1-13
A	US 5 833 989 A (DANUTA EWA IRENA MOSSKOWSKA ET AL) 10 November 1998 (1998-11-10) cited in the application claims 1-16 column 6, line 66 -column 7, line 4 column 8, line 50 - line 55	1-13
A	MAKRIDES S C ET AL: "CELL SURFACE EXPRESSION OF THE C3B/C4B RECEPTOR (CR1) PROTECTS CHINESE HAMSTER OVARY CELLS FROM LYSIS BY HUMAN COMPLEMENT" JOURNAL OF BIOLOGICAL CHEMISTRY,US,AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, vol. 264, no. 34, 5 December 1992 (1992-12-05), pages 24754-24761, XP002072411 ISSN: 0021-9258 cited in the application	1-13
A	HANCOCK ET AL: "A polybasic domain or palmitoylation is required in the addition to the CAAX motif to localize p21ras to the plasma membrane" CELL,US,CELL PRESS, CAMBRIDGE, NA, vol. 63, 5 October 1990 (1990-10-05), pages 133-139, XP002079834 ISSN: 0092-8674 cited in the application	1-13



# INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 00/00834

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/00834

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9839433	A	11-09-1998	AU 6509098 A EP 0979276 A	22-09-1998 16-02-2000
WO 9802454	A	22-01-1998	AU 3693997 A EP 0912730 A	09-02-1998 06-05-1999
WO 9711601	A	03-04-1997	AU 7386796 A	17-04-1997
US 5693462	A	02-12-1997	US 5554497 A AU 4420396 A CA 2207324 A EP 0797384 A WO 9618293 A	10-09-1996 03-07-1996 20-06-1996 01-10-1997 20-06-1996
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